# Mental Health and Wellbeing for Young People from Intersectional Identity Groups: Inequity for Māori, Pacific, Rainbow Young People, and those with a Disabling Condition

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'Intersectionality' describes the converging effects of ethnicity, gender, sexuality, disability, and other social group characteristics that influence life experiences. We draw on a representative study of year 9-13 students in Tai Tokerau, Tāmaki Makaurau, and Waikato (Youth19) to explore differences in mental health and wellbeing outcomes for young people from a selection of intersectional identities (Māori, Pasifika, Rainbow, and young people with a Disabling Condition). We found a pervasive pattern of inequity for young people who have intersectional identities compared to those from the majority groups (i.e. Pākehā, non-disabled, cis-heterosexual youth). Intersectional youth had higher levels of inequity and faced a greater array of inequities. There was evidence of an additive effect for some indicators. Thematic analysis of open-text survey responses found the need for positive inclusive environments, and support for all young people, including those at the intersections of identity. Drawing on the findings, we offered several systems-level policy recommendations, including strategies to improve inclusiveness and reduce discrimination.

**Keywords:** Intersectionality, Inequity, Māori, Pacific, Rangatahi, Rainbow, Takatāpui, Disability, Youth, Wellbeing, Mental health, Discrimination

#### INTRODUCTION

Aotearoa New Zealand has an ethno-culturally diverse population of young people, foregrounded by a foundation of biculturalism, in the context of Te Tiriti o Waitangi (Came et al., 2021). Within the youth population, there are groups who are often minoritised, including Indigenous Māori and other minority groups including Pasifika, Rainbow<sup>1</sup> communities, and those with disabilities or chronic conditions (Clark et al., 2018; Fleming, Tiatia-Seath, Peiris-John et al., 2020; Peiris-John et al., 2016). This ethnic, cultural, sexual and ability diversity leads to unique strengths and challenges for young people. Despite the improvements in youth health and wellbeing in recent decades, significant challenges and inequalities remain for many specific identity groups (Ball, 2019; Ball et al., 2019; Clark et al., 2013; Clark et al., 2018; Clark et al., 2020; Fleming, Ball, Peiris-John, et al., 2020; Fleming, Peiris-John, Crengle et al., 2020; Fleming, Tiatia-Seath, Greaves et al., 2020). For instance, from 2012 to 2019, the mental distress of Māori and Pacific young people has increased markedly, while inequities in mental health have increased for Rainbow and disabled young people

(Clark et al., 2020; Fleming, Tiatia-Seath, Peiris-John, et al., 2020).

Here we investigate the health and wellbeing of secondary school students from the following intersecting identity groups (hereafter 'intersectional') using data from the Youth19 Survey: 1) Rainbow rangatahi Māori; 2) Rangatahi Māori with a Disabling Condition; 3) Pacific Rainbow young people; 4) Pacific young people with a Disabling Condition; and 5) Rainbow young people with a Disabling Condition. We then present open-text responses from these groups on the issues that they are facing and what would improve their lives.

## Intersectionality

Intersectionality is an analytical framework that emerged from critical race studies. It was originally conceptualised to examine Black women's experiences of oppression that were both racial and gendered (Crenshaw, 1991, 1993). The concept of 'intersectionality' suggests that an individual's multiple identities (e.g., their class, gender, ethnicity, and sexuality) can have converging effects that contribute to marginalisation, social identity, and wellbeing (Seng et al., 2012). Instead of focusing on

identities, as well as those who have a pattern of sexual attractions reflecting such sexualities.

<sup>&</sup>lt;sup>1</sup> In this paper we use the term "Rainbow" to refer to young people with Lesbian, Gay, Bisexual, Transgender, Takataapui identities and other sexuality and gender

a single social position, an intersectional approach seeks to understand how people with multiple identities may often face complex and multilayered inequality (Huang et al., 2020). An intersectional approach has been used to explore the effects of multiple aspects of identity on health and wellbeing outcomes (Seng et al., 2012). Such an approach helps to illuminate the ways in which members of multiple marginalised groups are at increased risk for some negative experiences, and how members of multiple privileged groups may have a greater chance of positive outcomes (Settles & Buchanan, 2014).

Intersectionality frameworks also help identify, with more nuance, the obstacles people may encounter when accessing services and resources. When providing services to minorities, agencies tend to tailor their practices to one specific group and to its members' needs (Hankivsky et al., 2014). Such an approach is myopic and often fails to comprehend the complexities of the needs of people with intersectional identities. Thus, those with intersectional identities are often unable to access support in a single space, and are as a result often excluded (Roberston, 2020). In summary, intersectional analysis examines the impacts of multiple aspects of identities on health and wellbeing outcomes. It can explain why individuals belonging to multiple marginalised groups may experience negative experiences differently, sometimes additively and at other times more complexly. as a result of belonging to multiple marginalised groups.

There is little research on intersectionality among young people in Aotearoa. While there are studies that include young people with more than one minority identity (Chiang et al., 2019; Le Va, 2020; Lewycka et al., 2020; New Zealand Human Rights Commission, 2020; Roberston, 2020; Scoop, 2020; Veale et al., 2019), very few of them explicitly mention intersectionality or examine wellbeing for multiple intersectional groups. Our research redresses this imbalance by exploring the associations of key intersectional identity groups with diverse health and wellbeing outcomes, including consideration of compounded health ('double-jeopardy') and wellbeing inequities.

The 'double jeopardy' hypothesis explains how the addition of further minority group membership may present multiple challenges (Grollman, 2014; Das-Munshi, 2016). According to this hypothesis, those belonging to additional marginalised groups could experience further stress over-and-above the stress experienced by single minority group members (Ferraro & Farmer, 1996; Hayes et al., 2011). More recently, it has been suggested that the 'multiply disadvantaged' status of holding more than one stigmatised identity is worse for health than experiencing single or no disadvantages (Grollman, 2014; Das-Munshi, 2016).

According to another hypothesis, members of multiple minority groups may also develop coping skills, coping strategies, and resistance to oppression (Penehira et al., 2014; Chiang et al., 2019; Jaspal & Williamson, 2017; Li et al., 2017). Put another way, intersectionality can mean that rather than a layering or compounding of the effects of marginalisation, the unique intersections of identities produce exceptional outcomes (Penehira et al., 2014). There are times when the intersection of multiple marginalised identities may also offer strengths and

opportunities, including the ability to resist (Penehira et al., 2014), and to belong to multiple communities (Chiang et al., 2019; Jaspal & Williamson, 2017; Li et al., 2017). According to Chiang (2019), for instance, Asian young people who are attracted to same-sex and both-sex often face heterosexism in family settings, and racism in queer communities, which makes it hard for their whole identities to be accepted. In parallel with that, they belong to both families and wider ethnic communities, each of which can provide them with support in a variety of ways, as well as meet their needs for belonging and inclusion.

#### Overview, Aims, and Hypotheses

In this paper, first, we explore the wellbeing indicators of secondary school students with the following identities using data from the Youth19 Rangatahi Smart Survey: 1) Rainbow rangatahi Māori; 2) Rangatahi Māori with a Disabling Condition; 3) Pacific Rainbow young people; 4) Pacific young people with a Disabling Condition; and 5) Rainbow young people with a Disabling Condition, compared to those from single and double "majority" groups as the reference group. We then employed an intersectional framework to investigate how membership in multiple marginalised groups is associated with health and wellbeing outcomes. Finally, we delved into what young people from these specific intersectionality groups said would make Aotearoa a better place for them. To do this, we drew on text responses to two open questions in the Youth19 survey which asked young people what they thought were the biggest problems facing young people, and what could be changed to better support young people.

#### METHOD

## Sampling and Procedure

The Youth19 survey is the latest in the Youth2000 Series surveys. Ethical approval was granted by The University of Auckland Human Subjects Ethics Committee (application #022244). In each participating school, the principal or board of trustees provided consent, parents/caregivers were informed and were able to have their child excluded, and the randomly-selected students then provided informed consent. The sample included the 242 schools in the Tai Tokerau, Auckland, and Waikato regions with students in year 9 or above. Kura kaupapa Māori (schools that operate within a Māori philosophy/in te reo Māori) were sampled separately. The final sample comprised 45 mainstream schools (56% response rate for schools; 60% response rate for students, n=7,374) and four kura (67% for kura, 71% for students, n=347). Sample weights were calculated to accurately estimate parameters of the surveyed population using the sampled data; first, as inverse probability weights to adjust for the unequal probability of each individual being invited to participate. The survey was conducted on mobile tablets using Qualtrics. All materials were available in English and te reo Māori, and were available in a read-aloud format. All survey responses were anonymous, and all questions were optional. Participants could also opt in to receive digital help information and safety information was presented around sensitive topics. Further

**Table 1.** Prevalence with 95% confidence intervals across variables for the analyses for Rainbow Rangatahi Māori and Rainbow Pacific Young People.

| Variable Name         | Māori,            | Māori,            | Pākehā,           | Pākehā,           | Pacific,          | Pacific,          |
|-----------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|
|                       | Rainbow           | Non-Rainbow       | Rainbow           | Non-Rainbow       | Rainbow           | Non-Rainbow       |
|                       | % (95% Cls)       | % (95% Cls)       | % (95% Cls)       | % (95% CIs)       | % (95% Cls)       | % (95% Cls)       |
| Family acceptance     | 76.3 (68.1, 84.5) | 86.4 (84.1, 88.7) | 78.8 (72.7, 84.9) | 93.2 (92.1, 94.3) | 70.2 (59.5, 80.8) | 89.2 (87.1, 91.2) |
| Family close          | 79.3 (71.5, 87.1) | 88.3 (86.2, 90.4) | 74.5 (67.7, 81.2) | 88.6 (87.2, 90.0) | 75.8 (65.8, 85.7) | 90.3 (88.2, 92.3) |
| Safe at home          | 93.9 (89.0, 98.9) | 98.3 (97.4, 99.2) | 96.4 (93.9, 98.9) | 99.3 (99.0, 99.7) | 93.4 (88.0, 98.9) | 98.9 (98.3, 99.5) |
| Housing instability   | 25.5 (17.2, 33.7) | 16.7 (14.3, 19.2) | 9.6 (4.9, 14.3)   | 4.4 (3.5, 5.3)    | 23.0 (13.4, 32.6) | 20.0 (17.4, 22.7) |
| Food insecurity       | 50.0 (40.4, 59.7) | 39.0 (35.8, 42.3) | 20.5 (14.5, 26.5) | 16.1 (14.4, 17.8) | 42.1 (30.5, 53.6) | 48.7 (45.2, 52.2) |
| Part of school        | 71.5 (63.2, 79.9) | 85.0 (82.7, 87.4) | 78.3 (72.8, 83.8) | 86.1 (84.6, 87.5) | 85.0 (77.2, 92.8) | 87.5 (85.2, 89.8) |
| Teacher expectations  | 94.4 (90.2, 98.6) | 94.9 (93.5, 96.3) | 89.8 (84.4, 95.2) | 96.9 (96.2, 97.6) | 92.7 (86.5, 99.0) | 96.9 (95.7, 98.1) |
| Safe at school        | 69.3 (60.8, 77.9) | 85.2 (83.0, 87.4) | 78.3 (72.2, 84.4) | 89.1 (87.7, 90.6) | 76.2 (66.3, 86.1) | 85.4 (83.0, 87.7) |
| Positive future       | 48.0 (37.5, 58.5) | 67.7 (64.2, 71.1) | 50.2 (42.1, 58.3) | 74.7 (72.8, 76.7) | 52.1 (38.1, 66.0) | 67.1 (63.6, 70.7) |
| Volunteering          | 48.6 (37.8, 59.4) | 57.4 (54.0, 60.9) | 54.5 (47.3, 61.6) | 53.0 (50.8, 55.2) | 58.1 (46.2, 70.1) | 57.1 (53.6, 60.7) |
| Safe in community     | 86.6 (79.9, 93.4) | 92.5 (90.5, 94.5) | 91.7 (87.4, 96.0) | 95.4 (94.5, 96.3) | 91.5 (85.2, 97.7) | 94.1 (92.4, 95.8) |
| Talk with friend      | 78.7 (71.2, 86.2) | 82.1 (79.7, 84.6) | 86.4 (82.1, 90.7) | 85.9 (84.4, 87.5) | 90.6 (85.3, 96.0) | 83.2 (80.6, 85.7) |
| Friend supports       | 76.9 (69.2, 84.7) | 90.5 (88.5, 92.4) | 77.0 (70.8, 83.1) | 89.6 (88.2, 91.0) | 84.1 (75.9, 92.3) | 90.1 (87.9, 92.2) |
| Accessed healthcare   | 73.0 (64.6, 81.4) | 76.8 (74.0, 79.5) | 79.8 (73.1, 86.5) | 81.5 (79.8, 83.2) | 69.6 (57.6, 81.6) | 72.7 (69.7, 75.8) |
| Forgone healthcare    | 32.5 (23.6, 41.4) | 25.9 (23.0, 28.8) | 27.8 (20.9, 34.8) | 15.2 (13.6, 16.8) | 39.4 (26.3, 52.4) | 25.6 (22.6, 28.5) |
| Health discrimination | 9.4 (4.7, 14.2)   | 6.5 (5.0, 7.9)    | 3.1 (1.5, 4.7)    | 2.8 (2.1, 3.5)    | 15.1 (6.2, 24.0)  | 7.9 (6.1, 9.7)    |
| Cigarette use         | 16.6 (9.9, 23.4)  | 15.0 (12.6, 17.3) | 16.2 (9.5, 23.0)  | 7.7 (6.6, 8.7)    | 20.1 (11.4, 28.8) | 10.8 (8.8, 12.8)  |
| Binge drinking        | 27.6 (20.7, 34.5) | 29.0 (26.4, 31.6) | 20.6 (18.7, 22.5) | 23.3 (21.7, 24.8) | 18.7 (12.5, 24.9) | 18.7 (16.7, 20.7) |
| Marijuana use         | 33.0 (24.2, 41.8) | 25.2 (22.5, 27.8) | 19.3 (13.6, 25.0) | 16.4 (14.9, 17.9) | 24.4 (13.4, 35.3) | 15.3 (13.2, 17.5) |
| Had sex               | 36.0 (27.5, 44.5) | 29.1 (26.5, 31.7) | 19.7 (16.2, 23.2) | 19.2 (17.8, 20.7) | 35.5 (25.4, 45.7) | 21.3 (18.9, 23.7) |
| Condom use            | 29.1 (16.5, 41.8) | 35.3 (28.4, 42.1) | 45.0 (26.9, 63.1) | 48.1 (41.9, 54.4) | 24.6 (8.5, 40.7)  | 28.3 (20.7, 36.0) |
| Contraception use     | 27.1 (12.7, 41.5) | 39.4 (32.7, 46.1) | 53.1 (34.8, 71.3) | 59.6 (53.4, 65.8) | 21.5 (4.7, 38.3)  | 31.1 (23.5, 38.6) |
| Good wellbeing        | 42.0 (32.8, 51.2) | 70.5 (67.6, 73.4) | 37.5 (30.3, 44.6) | 73.3 (71.3, 75.3) | 52.1 (40.3, 63.9) | 76.4 (73.7, 79.2) |
| Depressive symptoms   | 53.3 (43.8, 62.8) | 26.9 (24.1, 29.8) | 48.9 (41.0, 56.9) | 18.1 (16.4, 19.9) | 46.7 (35.0, 58.5) | 24.2 (21.3, 27.1) |
| Suicide thoughts      | 45.7 (36.4, 55.0) | 23.3 (20.5, 26.1) | 44.9 (37.0, 52.9) | 15.4 (13.8, 17.1) | 41.8 (28.8, 54.7) | 24.3 (21.4, 27.2) |

Note: Prevalence estimates adjusted for survey design and for age and gender. Values in bold indicate where the group's CIs do not overlap with those of the double majority group. For space considerations we report the estimates for Pākehā Rainbow and Pākehā Non-Rainbow for the Rangatahi Māori analyses, full original % and CIs for the Pākehā groups in the Pacific analysis are presented in Table S3, SOM.

information on the survey can be found in Fleming Peiris-John, Crengle, et al. 2020).

#### Measures

The Youth19 survey comprised 285 questions across 11 key areas. From these, we selected key health and wellbeing indicators based on local and international literature. The full measures are presented in the Supplementary Online Materials (SOM) for this paper (Table S1; see also Fleming Peiris-John, Crengle, et al. 2020). Wellbeing was measured using the World Health Organization Well-being Index (WHO-5; WHO, 1998). Good wellbeing was indicated by a score of 13 or more. Depressive symptoms were measured using the Short Form of the Reynolds Adolescent Depression Scale (RADS-SF). Scoring over the cut-off on this scale indicates 'clinically significant symptoms of depression'. Additionally, the survey included two open-text questions: 'What do you think are the biggest problems for young people today?' and 'What do you think should be changed to support young people in New Zealand better?' Responses were analysed by using a general inductive approach (Thomas, 2006). For coding, we followed the 5-step process which included: 1) data cleaning, 2) close reading of texts, 3) developing categories, 4) reviewing the overlapping codes and

uncoded text, and 5) revision and refinement of categories (see Thomas, 2006).

## **Participants**

We used four identities for our intersectionality analysis: Indigenous Māori ethnicity, Pacific ethnicity, those with a Disabling Condition, and a Rainbow categorisation. We constructed five groups: (1) 154 Rainbow Rangatahi Māori (1.9% of the sample); (2) 435 Rangatahi Māori with a Disabling Condition (5.5%); (3) 103 Pacific Rainbow young people (1.3%); (4) 293 Pacific young people with a Disabling Condition (3.8%); (5) 333 Rainbow young people with a Disabling Condition (4.3%; see Table S2, SOM).<sup>2</sup>

**Ethnicity.** Participants who identified Māori as one of their ethnic groups were included as Māori (*n*=1,528). We used the New Zealand census ethnicity prioritization method for allocating students with multiple ethnicities to one ethnic group, meaning those who identified as both Māori and Pacific were included in the Māori category. Those who identified a Pacific ethnicity (n=945), but not also as Māori, were included as Pacific (e.g., Samoan, Tongan, Niuean). We used Pākehā young people as a reference group (*n*=3,070). The results for intersectional

(*n*=95, 1.2%); Māori and Pacific and Rainbow (*n*=23, 0.3%); Māori and Pacific with a Disabling Condition (*n*=70, 3.3%). Nine participants identified with all four identities.

<sup>&</sup>lt;sup>2</sup> As a note, we were unable to examine intersectionality across three or more identity groups due to sample size. However, a number of students identified with three groups: Māori or Pacific and Rainbow with a Disabling Condition

Asian young people will be reported elsewhere (see Peiris-John et al., 2022)<sup>3</sup>.

**Rainbow.** Participants who self-identified with a broad range of sexual and gender diversities were included (n=998): (1) transgender/gender diverse students (n=123; e.g., those who reported being trans, nonbinary, Queen, fa'afafine, whakawahine, tangata ira tane, genderfluid, or genderqueer); and (2) students with Rainbow sexualities (n=875), defined as those with attraction to either the same sex or both sexes, and/or who identified as takatāpui (a te reo Māori term for those with diverse sexual/gender identities), lesbian, gay, bisexual, etc.

Young people with a Disabling Condition. Participants who identified that they have a disability, chronic condition or long term pain which impacts on their day-to-day functioning were categorised as having a 'Disabling Condition'. We started with those who reported: long-term (>six months) disabilities (e.g., sensory impaired hearing, visual impairment, in a wheelchair, learning difficulties; n=652); chronic pain including 'headaches, tummy pain, arms or leg pain' (n=1,720); or a 'long term' (>six months) chronic condition (such as 'asthma, diabetes, depression'; n=1,734). We narrowed this group to those whose condition(s) impacts on their day-to-day functioning (n=1,854; 24%). This a developmentally appropriate and inclusive definition which refers to disability as a limitation in activity and participation (see the World Health Organization International Classification of Functioning, Disability and Health framework; Peiris-John et al., 2016).

## RESULTS

### Intersectional Identity Groups

For each binary outcome, a prevalence and 95% confidence interval was calculated for each of the groups with a double minority identity. Comparisons of the prevalence of each outcome were made between participants belonging to one minority group (e.g., Pacific and non-Rainbow, or Pākehā (those of European descent) and Rainbow) and those belonging to both minority groups (e.g., Pacific and Rainbow); we present these alongside those from the double 'majority' groups (e.g. Pākehā and non-Rainbow (i.e., cisgender/heterosexual)). We used a binomial generalised linear model with an identity link function to adjust for covariates. The model estimates prevalence (or risk) differences between groups while allowing for the inclusion of covariates (sex and age). The results of the separate analyses for the Rainbow Māori and Pacific groups are presented in Table 1, and for the Māori, Pacific, and Rainbow groups with a Disabling Condition in Table 2.

Rainbow Rangatahi Māori. When compared to those who were Rainbow and Pākehā, this group experienced higher economic insecurity on both the food insecurity and housing insecurity indicator. Rainbow rangatahi Māori also reported higher health discrimination, alongside greater challenges across mental and physical health. One set of results compared Rainbow rangatahi

Māori to Māori who did not have a Rainbow identity. In these analyses they also reported poorer mental health, but additionally, less positive hope for their future. There were again socioeconomic differences with Rainbow Māori reporting greater housing and food insecurity. They also reported worse school environments, and more discrimination. In sum, Rainbow rangatahi Māori faced major inequities when analyses compared their outcomes to the most advantaged group (Pākehā, non-Rainbow) and, when compared to those who shared a single identity, inequity across a greater range of indicators.

Rangatahi Māori with a Disabling Condition. Compared to Māori without disabilities/chronic conditions, rangatahi Māori with a Disabling Condition experienced lower scores across family, school and community environments indicators. They also had considerably poorer mental health, greater use of cigarettes and marijuana, higher socioeconomic challenges, were more likely to have been unable to access the healthcare they needed in the previous 12 months (i.e., forgone healthcare) and had experienced more ethnic discrimination by health providers compared to Māori without disabilities/chronic conditions. Compared to Pākehā participants with a Disabling Condition, they had lower socio-economic status, and experienced more racism, used cigarettes and marijuana more often, and were more likely to report thoughts of suicide. Overall, in comparison to Pākehā with no Disabling Condition (the most advantaged group), rangatahi Māori with a Disabling Condition faced major inequities, in addition to a greater and higher proportion of inequities than those who shared one identity.

Pacific Rainbow Young People. The Pacific Rainbow group faced increased challenges relative to the Pākehā Rainbow comparison group across some indicators, including on experience of discrimination when accessing healthcare, food security, and feeling part of school. In comparison to Pacific non-Rainbow young people, they also faced greater challenges across multiple health and family indicators. Across the results, Pacific Rainbow young people faced major inequities compared to the most advantaged group (Pākehā, non-Rainbow) and as was the case in other analyses, they faced a greater range of inequities when compared to those who hold just one of their minority identifies (that is, Pacific non-Rainbow or Pākehā Rainbow participants).

Pacific Young People with a Disabling Condition. Pacific youth with a Disabling Condition felt less safe at school and had poorer mental health than Pacific participants without a Disabling Condition. They were also more likely to forgo the healthcare they needed. Compared with Pākehā with a Disabling Condition, the Pacific group experienced greater socioeconomic challenges, namely, housing and food insecurity, and they were also more likely to have experienced ethnicity-based discrimination from their healthcare provider or to have forgone healthcare. However, when compared to their Pākehā counterparts, Pacific participants with a Disabling

with a Middle Eastern, Latin American, or African ethnicity, and given the sample size and diversity of this group we did not include them in these analyses.

<sup>&</sup>lt;sup>3</sup> The Youth19 survey is a large, collaborative project. Other researchers in the team explored these groups in more detail in Peiris-John et al. (2022). Only 389 students identified

Table 2. Prevalence with 95% confidence intervals across variables for the analyses for rangatahi Māori with a Disabling Condition, Pacific young people with Disabling Condition, and Rainbow with a Disabling Condition.

| itio             |              | •            |              | 1            |              |              | 1            |              |              |              |
|------------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|
| Variable Name    | Māori,       | Māori,       | Pākehā,      | Pākehā,      | Pacific,     | Pacific,     | Rainbow,     | Non-Rainbow, | Rainbow,     | Non-Rainbow, |
| ren              | Disabling    | No Disabling | Disabling    | No Disabling | Disabling    | No Disabling | Disabling    | Disabling    | No Disabling | No Disabling |
| ort              | Condition    |
| ed               | % (95% CIs)  |
| Family           | 75.1         | 89.5         | 85.7         | 93.8         | 81.3         | 89.7         | 67.0         | 82.8         | 76.9         | 90.3         |
| acceptance       | (70.0, 80.2) | (87.3, 91.8) | (82.6, 88.7) | (92.6, 94.9) | (76.5, 86.1) | (87.4, 92.0) | (61.1, 73.0) | (80.6, 85.0) | (72.1, 81.6) | (89.4, 91.3) |
| we               | 80.3         | 90.4         | 80.9         | 89.3         | 85.4         | 90.3         | 68.3         | 83.1         | 79.2         | 88.0         |
| ramily close     | (75.4, 85.1) | (88.4, 92.4) | (77.5, 84.4) | (87.8, 90.8) | (80.7, 90.2) | (88.0, 92.6) | (62.3, 74.3) | (81.0, 85.2) | (75.1, 83.2) | (87.0, 89.0) |
| ting             | 95.4         | 99.1         | 97.1         | 99.5         | 96.5         | 99.1         | 92.5         | 97.8         | 98.2         | 99.4         |
| Sare at nome     | (92.3, 98.5) | (98.5, 99.7) | (95.7, 98.5) | (99.2, 99.8) | (94.1, 98.9) | (98.5, 99.7) | (88.9, 96.1) | (96.9, 98.7) | (96.9, 99.4) | (99.1, 99.6) |
| Nousing          | 29.3         | 12.9         | 8.8          | 3.7          | 26.3         | 18.4         | 16.8         | 16.2         | 10.7         | 8.4          |
| ll instability   | (24.0, 34.6) | (10.5, 15.3) | (6.1, 11.4)  | (2.7, 4.6)   | (20.8, 31.8) | (15.6, 21.3) | (12.0, 21.5) | (14.1, 18.3) | (7.4, 14.0)  | (7.6, 9.3)   |
| _                | 50.5         | 36.0         | 23.2         | 14.3         | 54.8         | 46.2         | 31.9         | 35.5         | 26.7         | 23.4         |
| insecurity       | (44.6, 56.5) | (32.4, 39.5) | (19.4, 27.0) | (12.6, 16.0) | (48.1, 61.4) | (42.4, 50.1) | (26.0, 37.9) | (32.7, 38.3) | (22.0, 31.4) | (22.1, 24.8) |
|                  | 73.0         | 88.1         | 80.8         | 86.8         | 83.2         | 88.6         | 75.4         | 82.1         | 84.8         | 88.2         |
| Part of school   | (67.8, 78.2) | (85.9, 90.4) | (77.7, 83.9) | (85.2, 88.3) | (78.6, 87.8) | (86.1, 91.1) | (70.4, 80.4) | (80.0, 84.2) | (81.4, 88.1) | (87.2, 89.2) |
| Teacher          | 92.6         | 95.7         | 94.6         | 2.96         | 96.3         | 96.7         | 92.0         | 95.4         | 94.4         | 6.96         |
| expectations     | (89.4, 95.8) | (94.4, 97.0) | (92.5, 96.7) | (95.8, 97.6) | (94.1, 98.4) | (95.3, 98.2) | (88.4, 95.5) | (94.2, 96.5) | (91.6, 97.1) | (96.4, 97.4) |
| loodes to star   | 69.5         | 88.5         | 78.5         | 91.4         | 77.1         | 86.8         | 9.89         | 78.9         | 86.4         | 90.0         |
| Sale at scrioor  | (64.3, 74.8) | (86.3, 90.7) | (74.6, 82.4) | (90.0, 92.8) | (72.0, 82.2) | (84.3, 89.3) | (62.8, 74.4) | (76.6, 81.3) | (83.2, 89.7) | (89.0, 90.9) |
| Docition fortune | 56.8         | 69.4         | 59.2         | 76.8         | 61.8         | 67.4         | 43.0         | 60.2         | 58.7         | 71.2         |
| Positive inture  | (50.2, 63.3) | (65.7, 73.1) | (54.6, 63.8) | (74.7, 78.8) | (54.6, 69.0) | (63.5, 71.3) | (36.1, 49.9) | (57.3, 63.2) | (53.2, 64.2) | (69.8, 72.7) |
| Valueta de la    | 60.7         | 54.6         | 55.1         | 52.6         | 61.4         | 55.8         | 54.6         | 57.4         | 54.5         | 52.7         |
| Aoimiceilig      | (54.3, 67.1) | (50.7, 58.5) | (50.8, 59.5) | (50.2, 55.0) | (54.8, 68.1) | (51.9, 59.8) | (48.1, 61.2) | (54.5, 60.3) | (49.2, 59.8) | (51.2, 54.3) |
| Safe in          | 6.68         | 92.8         | 94.3         | 95.2         | 8.06         | 94.9         | 9.06         | 93.4         | 93.3         | 95.3         |
| community        | (85.8, 94.0) | (90.7, 94.9) | (92.3, 96.3) | (94.2, 96.2) | (87.2, 94.4) | (93.1, 96.7) | (86.7, 94.5) | (91.9, 94.8) | (90.7, 95.8) | (94.6, 96.0) |
| Talk with        | 79.0         | 82.9         | 82.0         | 87.2         | 81.8         | 84.3         | 78.8         | 80.1         | 83.1         | 85.3         |
| friend           | (74.4, 83.5) | (80.2, 85.6) | (78.8, 85.3) | (85.6, 88.9) | (77.1, 86.6) | (81.5, 87.0) | (74.0, 83.5) | (77.8, 82.3) | (79.6, 86.7) | (84.2, 86.4) |
| Friend           | 84.1         | 91.2         | 82.4         | 90.3         | 87.6         | 90.3         | 75.1         | 84.9         | 83.5         | 88.5         |
| supports         | (79.8, 88.3) | (89.1, 93.2) | (78.9, 86.0) | (88.8, 91.8) | (83.4, 91.8) | (87.9, 92.7) | (69.6, 80.5) | (82.7, 87.1) | (79.9, 87.2) | (87.5, 89.5) |
| Accessed         | 76.3         | 76.4         | 85.7         | 79.9         | 74.1         | 72.1         | 79.6         | 82.6         | 74.2         | 76.2         |
| healthcare       | (71.6, 81.1) | (73.3, 79.5) | (82.4, 89.0) | (77.9, 81.8) | (68.3, 79.9) | (68.6, 75.5) | (73.9, 85.2) | (80.4, 84.8) | (69.4, 79.0) | (75.0, 77.5) |

Condition reported better wellbeing. Overall, Pacific

Table 2 (cont'd). Prevalence with 95% confidence intervals across variables for the analyses for rangatahi Māori with a Disabling Condition, Pacific young people with Disabling Condition, and Rainbow with a Disabling Condition.

|                  |              | MINDOIL)     | Pākehā,      | Pākehā,      | Pacific,     | Pacific,     | Rainbow,     | Non-Rainbow, | Rainbow,     | Non-Rainbow, |
|------------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|
|                  | Disabling    | No Disabling | Disabling    | No Disabling | Disabling    | No Disabling | Disabling    | Disabling    | No Disabling | No Disabling |
|                  | Condition    |
| %                | % (95% CIs)  |
| Forgone          | 45.2         | 19.0         | 32.0         | 11.4         | 43.2         | 21.3         | 43.5         | 37.4         | 21.8         | 14.7         |
| healthcare (     | (39.3, 51.0) | (16.2, 21.8) | (27.9, 36.1) | (9.9, 12.9)  | (36.6, 49.7) | (18.2, 24.5) | (36.9, 50.2) | (34.6, 40.2) | (17.4, 26.2) | (13.6, 15.8) |
| Health           | 10.5         | 5.1          | 4.3          | 2.4          | 11.9         | 7.2          | 9.1          | 8.3          | 4.7          | 3,9          |
| discrimination   | (7.3, 13.7)  | (3.7, 6.5)   | (2.9, 5.7)   | (1.8, 3.1)   | (7.9, 15.8)  | (5.3, 9.1)   | (5.9, 12.2)  | (6.8, 9.9)   | (2.9, 6.5)   | (3.3, 4.5)   |
|                  | 20.6         | 13.1         | 12.5         | 7.2          | 16.2         | 10.0         | 21.3         | 11.5         | 7.6          | 9.9          |
| Cigarette use (  | (15.8, 25.3) | (10.7, 15.6) | (9.5, 15.6)  | (6.0, 8.3)   | (11.6, 20.8) | (7.9, 12.1)  | (15.4, 27.3) | (9.8, 13.2)  | (5.0, 10.1)  | (5.9, 7.3)   |
|                  | 30.0         | 28.3         | 26.3         | 21.9         | 21.6         | 17.9         | 18.2         | 21.7         | 15.7         | 16.4         |
| Binge drinking ( | (25.2, 34.8) | (25.5, 31.1) | (23.1, 29.5) | (20.3, 23.5) | (16.6, 26.5) | (15.8, 20.0) | (14.6, 21.7) | (19.7, 23.8) | (13.6, 17.7) | (15.4, 17.4) |
|                  | 32.1         | 23.4         | 7.22         | 14.9         | 20.9         | 14.2         | 23.8         | 19.7         | 13.5         | 11.6         |
| Niarijuana use ( | (26.8, 37.4) | (20.5, 26.2) | (19.3, 26.2) | (13.4, 16.4) | (15.5, 26.2) | (12.1, 16.3) | (18.4, 29.1) | (17.5, 21.8) | (10.5, 16.6) | (10.7, 12.6) |
|                  | 31.4         | 29.0         | 21.9         | 18.5         | 22.7         | 21.7         | 7.72         | 20.5         | 20.4         | 16.2         |
| ) xax nau        | (26.6, 36.1) | (26.1, 31.9) | (19.3, 24.6) | (17.0, 20.0) | (18.1, 27.3) | (19.1, 24.3) | (22.6, 32.8) | (18.6, 22.4) | (17.0, 23.9) | (15.1, 17.2) |
|                  | 37.2         | 33.6         | 45.3         | 49.2         | 25.5         | 28.6         | 32.3         | 40.0         | 40.0         | 38.8         |
| ) asn monuo      | (26.7, 47.6) | (26.2, 40.9) | (36.1, 54.4) | (42.0, 56.3) | (14.2, 36.8) | (20.3, 36.9) | (22.0, 42.5) | (33.5, 46.5) | (26.4, 53.6) | (34.1, 43.5) |
| Contraception    | 37.1         | 37.9         | 54.3         | 61.0         | 35.3         | 7.72         | 31.2         | 44.9         | 32.4         | 48.1         |
| ) esn            | (27.0, 47.1) | (30.4, 45.3) | (44.6, 64.1) | (54.1, 67.9) | (22.3, 48.3) | (19.8, 35.6) | (20.3, 42.0) | (38.5, 51.3) | (19.3, 45.5) | (43.4, 52.9) |
| Good             | 49.1         | 74.7         | 45.6         | 77.9         | 64.2         | 77.6         | 27.1         | 53.8         | 55.1         | 7.77         |
| wellbeing (      | (43.5, 54.7) | (71.7, 77.7) | (41.3, 49.9) | (75.9, 79.9) | (58.3, 70.1) | (74.5, 80.6) | (22.3, 31.9) | (51.0, 56.6) | (49.9, 60.3) | (76.5, 79.0) |
| Depressive       | 53.3         | 20.5         | 45.6         | 13.2         | 42.5         | 21.1         | 71.3         | 44.4         | 35.2         | 15.7         |
| symptoms (       | (47.7, 58.9) | (17.7, 23.4) | (41.2, 50.0) | (11.5, 14.8) | (36.2, 48.8) | (18.0, 24.3) | (65.5, 77.1) | (41.6, 47.3) | (30.0, 40.5) | (14.6, 16.8) |
| Suicide          | 45.1         | 17.8         | 36.0         | 12.5         | 41.4         | 20.9         | 60.7         | 35.3         | 32.6         | 14.4         |
| thoughts (       | (39.3, 50.9) | (15.0, 20.6) | (31.7, 40.4) | (10.7, 14.2) | (34.8, 47.9) | (17.8, 24.1) | (54.5, 67.0) | (32.6, 38.1) | (27.6, 37.7) | (13.3, 15.5) |

group. For space considerations we report the estimates for Pākehā Disabling Condition and Pākehā No Disabling Condition for the Rangatahi Māori analyses, full original % Note: Prevalence estimates adjusted for survey design and for age and sex. Values in bold indicate where the group's CIs do not overlap with those of the double majority and CIs for the Pākehā groups in the Pacific analysis are presented in Table S4, SOM. Condition reported better wellbeing. Overall, Pacific youth with a disability faced a similar pattern to the other groups reported here, in that they faced major inequities when analyses compared them to the most advantaged group (Pākehā with no Disabling Condition). In addition, Pacific youth with a Disabling Condition tended to face a greater range of inequities than those who they share only one minority identity with.

Rainbow Young People with a Disabling Condition. Young people with these two identities faced major challenges in their mental health and wellbeing. Rainbow young people with a Disabling Condition had more challenging home environments, worse relationships, a greater frequency of cigarette smoking and far poorer mental health scores and outcomes, when compared with those who identified as solely Rainbow (with no Disabling Condition) or (non-Rainbow) with a Disabling Condition. For example, 71% of this group had depressive symptoms in the clinically significant range, and only 27% reported good wellbeing. Overall, rainbow young people with a Disabling Condition reported both more frequent and a greater proportion of inequities than those with one of the identities. Of particular concern was their high mental health needs.

#### Youth Voices

We coded the open-text responses from young people with the included intersectional identities. There were two broad themes in response to: 'What do you think are the biggest problems for young people today?'

Lack of acceptance and understanding. There were two significant problems that the participants most frequently cited. They were: 1) a lack of acceptance, understanding, and support for their identities, and 2) mental health issues and social pressure. Some participants reported feeling alienated, unaccepted, or misunderstood by the people close to them, including friends and family members. There were several participants who mentioned how important it is to talk about their feelings and emotions:

My mum will never fully get me, nor I her. She understands that I am gay and that won't change but it feels more like tolerance than genuine acceptance. She acts supportive of my relationship with my girlfriend but has gone on record saying she wishes I wasn't gay. It's not true acceptance, it's merely putting up with me. —Māori, Rainbow

Not being accepted for who you are. Young people are always putting on a mask and being other people, not who they truly are. –Māori, Disabling Condition

Mental health and social pressure. There were overwhelming concerns about mental health, depression, suicide, and social pressure. The majority of participants said they felt pressured by unreasonable expectations from society, but in particular from teachers, peers, and their family. The feeling of not belonging was widespread, and some mentioned bullying as an issue. The majority of these young people felt a lack of mental health support and resources:

Mental health is not being promoted as well as it can be... We have one of the highest suicide rates in the world and it is upsetting to see this happen, as our youth numbers declining. –Pacific, Disabling Condition

In response to the second question, 'What do you think should be changed to support young people in New Zealand better?' responses were categorised into three themes: listen to us and involve us; update the school and education system; and better support.

**Listen to us and involve us.** Young people want adults to listen to them, understand their point of view and involve them in decisions affecting their future. At home, in school, and in society generally, they want to be heard and taken more seriously. Overall, young people strongly want their opinions to be heard, valued, and acted upon:

Make people feel loved and welcomed in their society. Make buildings for people that don't feel safe and wanted in New Zealand build them in every suburb, not just the popular ones. –Māori, Disabling Condition

The system needs to be more aware of the children. My view is that they don't know anything about children. This is the 21st century. –Māori, Disabling Condition

**Update school.** Intersectional young people expressed a need for the school system to be 'updated and improved'. In order to better meet their current and future needs, many wanted schools modernised. Specifically, they would like to learn more about financial literacy, tax returns, listening and relationship skills, health, stress management, how to manage emotions, and job-searching skills. Participants also suggested that school could be made less stressful by reducing the pressure of assessments that do little to enhance real understanding:

Educate me on things I actually will use in the future... Educate people on mental health, taxes, future pathways, politics, how to buy a home, job interviews, getting promotions etc. etc. These are so much more important than things like Pythagoras theorem. —Pacific, Rainbow, Disabling Condition

**Support us.** Participants also highlighted the need for social, emotional, and practical support, including better mental health support. Many suggested that support from family members, mentors, and role models who understood and had 'been there' could serve as a 'bridge to the future', showing the way. Rather than expecting young people to seek help on their own, they wanted adults to reach out to them:

Mental health care needs more funding, and it's kind of stupid we haven't already done that since we have the highest teen suicide rate in the world. –Rainbow, Disabling Condition

#### DISCUSSION

Firstly, in order to situate the current work, it is important to make clear that most of the young people in the sample reported good health and wellbeing, plus positive social and community environments. Yet there were also serious challenges and inequities. We first discuss these results in relation to intersectionality theory, where we found mixed results. For some indicators, we could say that the challenges that the young people experienced looked additive. To give an example, when

examining the likelihood of discrimination by healthcare providers, Pacific Rainbow participants seemed to be close to the risk for each of those groups with a single minority identity: i.e., the inequity for Pacific non-Rainbow young people (greater than for the Pākehā non-Rainbow group) added to the inequities for Rainbow Pākehā participants (which were again greater than those for non-Rainbow Pākehā young people).

Furthermore, in addition to higher levels of inequity on some indicators, those in intersectional groups also faced more categories of inequity. That is, inequities on a greater number of measures than those belonging to one minority group alone: for instance, we found evidence of both double or increased inequity and an increased range of inequities (a 'full house' or broad sweep of inequities). However, on some of the indicators the challenges that young people faced appeared to be parallel. Put another way, inequities on some of the indicators were not significantly increased for intersectional young people relative to their level for young people who held just one of the identities. However, overall, young people in intersectional groups tended to face a larger array of inequities than young people with one identity. For example, Rainbow rangatahi Māori may experience the inequities faced by rangatahi Māori (such as increased health discrimination) plus those faced by Pākehā Rainbow young people (for instance, lower wellbeing). While the pattern of these results does not necessarily follow the 'double jeopardy' hypothesis when it comes to challenges on individual indicators, it may indicate some type of 'double jeopardy' around facing each pattern of inequity because of each individual identity.

Our results show an increased risk of important health and wellbeing outcomes for those who hold an intersectional identity. Thus, these data show that inequity is a continuing problem. The impacts of discrimination and disadvantage have been well documented in past research on single minority groups (Clark et al., 2020; Fleming, Tiatia-Seath, Peiris-John, et al., 2020), but this study extends this past work by illustrating these effects by intersectionality in Aotearoa.

#### **Qualitative Perspectives**

The survey contained open-ended questions on what young people struggle with and how to make Aotearoa better. We analysed the themes from the results of young people with intersectional identities. We included the open-text responses to highlight the strengths demonstrated by young people with intersectional experiences - which are often overlooked in research about them. According to the participants, there is a lack of acceptance, understanding, and support for young people, along with mental health issues and social pressure. We identified three areas to improve the lives of intersectional young people: listen to us and involve us; update school; and support us. These themes reflected the ways in which whānau, communities, and Aotearoa could better support intersectional young people. Taken together, the results across the quantitative and qualitative data show a marked pattern of inequity, exclusion and lack of support for young people with intersectional identities in Aotearoa. This indicates the urgent need to account for the unique intersectional needs of youth by policymakers, agencies, schools, services and practitioners.

#### Strengths and Limitations

A key advantage of this survey was that it included a large sample, meaning we were able to narrow our analyses to intersectional groups while maintaining a sufficient sample size. However, note that some groups were nevertheless small in size. Therefore, some groups were combined (for example as 'Pacific' or as 'Rainbow', rather than more specific identity groups). Furthermore, although some differences may be meaningful in the real world, we still had wide confidence intervals and some differences did not reach statistical significance. Another key strength was that we did not target specific groups with the research, meaning we did not incidentally exclude those who do not identify with certain terms or communities. This is important as social desirability bias may limit young people from disclosing such identities. For example, if a study uses identity-first terms like "disabled" or "Rainbow" to recruit young people, they may not include those who have recently come to that identity or have not reached that point in their identity journey yet.

The large number of indicators in the survey allowed us to consider multiple domains of health and wellbeing. However, unfortunately, the Youth19 survey is regional – encompassing Northland, Auckland, and Waikato - but it may be that intersectional young people from other regions face different challenges and have different needs relating to access and community. The survey only included those present on the day of data collection, meaning that truant students or those who had left school were missed. This means the survey underrepresents those who are bullied or from lower income groups, which may mean the results were less negative than the actual population estimates on some measures (McGuire & Conover-Williams, 2010). Note that, although this was a large sample survey, we were still limited in our analyses and were unable to analyse the results separately for some groups, such as gender diverse young people. This is important to consider, as evidence suggests that transgender and non-binary people face different and additional challenges to those who identify with a Rainbow sexuality but are cisgender (Veale et al., 2019).

Other groups were missed by this work that could be focused on in other work. For instance, this analysis was of secondary school students and did not include younger people or those youth in the 18-25 age group. We also missed other identities important for intersectionality, such as different ethnic groups, refugee or migrant status, and socioeconomic position. Further work should explore these other intersectionalities and age groups, given the premise that they may all experience different patterns of unmet needs. It is also important to consider that these data were collected prior to the COVID-19 pandemic. It is likely that inequities have been exacerbated by the pandemic, given that research shows that the pandemic, its response, and its recovery are impacting many of these groups more (Radford Poupard, 2021; Steyn et al., 2021). In summary, while this paper documents outcomes in Aotearoa for groups that past work has missed, we did not include some important groups to focus on that future work could remedy.

## **Policy Recommendations**

Our results lead to multiple potential policy recommendations. Addressing the determinants of inequity and inequality at multiple levels is the best way to achieve sustained major improvements in wellbeing and outcomes (Prevention Institute, (n.d.); Sims & Aboelata, 2019). The best approach to improve outcomes for youth with intersecting identities is through addressing the structural determinants of health and wellbeing that impact them. These include the effects of social and financial inequities, colonisation, systemic racism, ableism, and heterosexism (Reid et al., 2019; Came et al., 2021; Clark et al., 2022). It is suggested that workforce development in health, social services, and education be implemented to ensure that young people are not discriminated against and that providers understand their needs. Particularly, highlighting Te Tiriti and the Mana Māori Motuhake of rangatahi (Māori youth selfdetermination) must be a policy priority to reduce discriminatory practices affecting youth wellbeing (Lindsay Latimer et al., 2021).

It is important to create a shared vision for intersectional youth to make sure they are able to collaborate, and ensure there is action and accountability (Sims & Aboelata, 2019). Young people need to be explicitly included and lead any plans, strategies and policies that affect their wellbeing, not just in an advisory capacity. An example of a framework that attends to this is the Child and Youth Wellbeing Strategy (DPMC, 2019). Representation and enhancing the ability to build communities are important, and young people's intersectional identities need to be visible at all levels of leadership and included in community engagement (e.g., see Taylor et al., 2021). Such engagement ensures inclusive decision making, but more than that, visible role models are important as they represent a positive future for diverse young people. There are multiple ways that collaborations can be supported, including creating pan-organisational groups associations, youth activism (e.g., climate activism), supporting sustained funding for organisations, paid roles for youth advisory groups, and facilitating/funding events.

Our findings point to the urgent need for inclusive policy and practice in education institutions. The data shows that education institutions must work harder to enable all young people to feel valued, included and safe. Three domains to address educational equality for these young people at school stand-out: 1) continued work supporting schools to comprehensively identify and reduce discrimination and harassment, including biasrelated bullying; 2) reviewing the curriculum across the institution, so that diverse young people's lives and experiences are visible and valued throughout and across their time at school; and 3) ensuring that the physical environment, including changing rooms, bathrooms, and pastoral care and health facilities, as well as policies on school uniforms, sports, and social events are inclusive for all (e.g., see Te Kete Ipurangi Inclusive Guides resources). In relation to curriculum inclusion, our findings show that many intersectional young people reported having already had sex, which makes comprehensive relationship and sexuality education that is inclusive of their experiences a priority, including in primary school and intermediate.

#### Future Research

A clear evidence base is critical for policy and creating positive change for intersectional young people. While this survey provides a snapshot of the outcomes for different groups, the work needs to be followed up with methods that can provide detailed information about the experiences of these young people, for instance, from interviews, focus groups, wānanga, or workshops. Such work should also seek to include the whānau of young people with intersectional identities, given the crucial support role they play in young people's lives. The current paper also does not explore the issues facing older young people (i.e., those aged 19-25). Future work could focus on the challenges older youth face.

There are two key ways to investigate intersectionality. Firstly, work is needed that explores the broader picture and is large enough to gain representation from those in intersectional groups, in order to get a full picture of wellbeing in Aotearoa. Examples of this type of work include the Youth2000 survey series, but there are also two large surveys that regularly collect in-depth data from thousands of New Zealanders: The New Zealand Attitudes and Values Study and the Ministry of Health-led New Zealand Health Surveys. Secondly, work is needed that considers the specific experiences of these intersectional groups, that are driven by communities/members of the groups themselves. Examples of this type of work include the HONOUR project Aotearoa (for Rainbow/takatāpui Māori), and the Manalagi project (for Rainbow Pacific communities; Thomsen, 2020). To support such research, we recommend first consulting and engaging with those intersectional community groups and researchers who have research in progress or existing data, before collecting further data and increasing the burden on those respondents and communities. Another important policy issue is ensuring that both kinds of research have sufficient and consistent funding, especially large, multiple-year studies in order to monitor the well-being of all New Zealanders.

## Conclusion

In this paper, we show considerable inequities for young people from key intersectional identities in Youth19 data. The overall challenges faced by those in the intersectional groups are significantly greater than those faced by those from the double majority. Additionally, they are generally subject to a greater number of inequities than young people who identify with only one group, and, on some indicators, they are also more challenged or have more unmet needs than those who belong to only one group. There were several areas that showed particular, marked inequities, including, mental health and wellbeing, food and housing insecurity, and forgone healthcare alongside discrimination by healthcare providers, all of which are very clearly associated with social inequities and discrimination. We would also like to note that despite these results, most young people report good health as well as good experiences at school, within family environments, and within friendships. Responses from young people with intersectional identities highlight the

need for positive inclusive environments, safety, elimination of discrimination, and appropriate support. In conclusion, it is important to keep in mind the strengths of

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## **SUPPLEMENTARY MATERIALS**

 Table S1. Health and Wellbeing Indicators Used in the Study.

| Short Name            | Survey Question                                   | Included Response Options                     |
|-----------------------|---|---|
| Family Acceptance     | "There is someone in my family/whānau who         | Agree/Strongly Agree                          |
|                       | accepts me for who I am"                          |   |
| Family Close          | "There is someone in my family/whānau who I       | Agree/Strongly Agree                          |
|                       | have a close bond with"                           |   |
| Safe at Home          | "Do you feel safe at home, or the place you       | Yes, all the time/ Yes, most of               |
|                       | live?"  | the time                                      |
| Housing Instability   | "For some families, it is hard to find a house    | Slept in: Cabin, caravan, or sleep            |
|                       | that they can afford, or that has enough space    | out/Garage/ Couch/ Another                    |
|                       | for everyone to have their own bed. In the last   | person's bed/Couch                            |
|                       | 12 months, have you had to sleep in any of the    | surfing/Motel, hostel, marae                  |
|                       | following because it was hard for your family to  | etc/Car or van/ Other                         |
|                       | afford or get a home, or there was not enough     |   |
|                       | space? (Do not include holidays or sleep-overs    |   |
|                       | for fun)."  |   |
| Food Insecurity       | "Do your parents, or the people who act as your   | Sometimes/Often/All the time                  |
|                       | parents, ever worry about not having enough       |   |
|                       | money to buy food?"                               |   |
| Part of school        | "Do you feel like you are part of your school,    | Yes   |
|                       | alternative education or course?"                 |   |
| Teacher Expectations  | "Do teachers/tutors expect you do well with       | Yes   |
|                       | your studies?"                                    |   |
| Safe at School        | "Do you feel safe in your school/course?"         | Yes, all the time/                            |
|                       |   | Yes, most of the time                         |
| Positive future       | "I can see a positive future for me in New        | Agree/Strongly Agree                          |
|                       | Zealand"  |   |
| Volunteering          | "Do you give your time to help others in your     | Yes   |
|                       | school or community (e.g. as a peer supporter     |   |
|                       | at school, help out on the Marae or church, help  |   |
|                       | coach a team or belong to a volunteer             |   |
|                       | organisation)?"                                   |   |
| Safe in Community     | "Do you feel safe in your neighbourhood?"         | All the time/Most of the time                 |
| Talk with Friend      | "I have at least one friend who I can talk with   | Agree/Strongly agree                          |
|                       | about things that are worrying me"                |   |
| Friend Supports       | "I have at least one friend who will stick up for | Agree/Strongly agree                          |
|                       | me and who has 'got my back'"                     |   |
| Accessed Healthcare   | "When was the last time you went for health       | 0–12 months ago                               |
|                       | care (excluding looking online)?"                 |   |
| Forgone Healthcare    | "In the last 12 months, has there been any time   | Yes   |
|                       | when you wanted or needed to see a doctor or      |   |
|                       | nurse (or other health care worker) about your    |   |
|                       | health, but you weren't able to?"                 |   |
| Health Discrimination | "Have you ever been treated unfairly (e.g.        | Yes   |
|                       | treated differently, kept waiting) by a health    |   |
|                       | professional (e.g. doctor, nurse, dentist etc.)   |   |
|                       | because of your ethnicity or                      |   |
|                       | ethnic group?"                                    |   |
| Cigarette Use         | "How often do you smoke cigarettes now?"          | Any other than "Never -<br>I don't smoke now" |
| Binge Drinking        | "In the past 4 weeks, how many times did you      | More than once                                |
| -                     | have 5 or more alcoholic drinks in one session -  |   |
|                       | within 4 hours?"                                  |   |
| Marijuana Use         | "In the last 4 weeks, about how often did you     | Any other than "Not at all - I                |
|                       | use marijuana?"                                   | don't use marijuana                           |
|                       |   | anymore"                                      |

Table S1 (cont'd). The Health and Wellbeing Indicators Used in the Study.

| Had Sex             | "Have you ever had sex? (by this we mean sexual intercourse). Only include sex that you wanted, or consented to - this does not include sexual abuse or rape."   | Yes   |
|---------------------|--|---|
| Condom Use          | "How often do you or your partner(s) use condoms to protect against sexually transmitted infections when having sex?"  | Always  |
| Contraception Use   | "How often do you, or your partner(s) use contraception (by this, we mean protection against pregnancy)?"  | Always  |
| Good Wellbeing      | WHO-5 Well-being scale (I have felt cheerful and in good spirits; I have felt calm and relaxed; I have felt active and vigorous; I woke up feeling fresh and rested; My daily life has been filled with things that interest me) | Total score indicates<br>good or better<br>wellbeing  |
| Depressive Symptoms | Reynolds Adolescent Depression Scale - Short<br>Form (RADS-SF)   | Total score indicates clinically significant symptoms |
| Suicide Thoughts    | "During the last 12 months have you seriously thought about killing yourself (attempting suicide)?"  | Yes   |

Table \$2. Demographic Characteristics of the Five Intersectional Groups.

| Group                                 |            |                                      | Gender      |          |                     |            | Age  |            |            | NZ  | NZ Deprivation Band   | and         |
|---------------------------------------|------------|--------------------------------------|-------------|----------|---------------------|------------|--|------------|------------|---|---|-------------|
|                                       | Total      | Female                               | Male        | Gender   | 13 and              | 14         | 15   | 16         | 174        | 1   | 2   | က           |
|                                       |            |                                      |             | diverse  | Under               |            |  |            |            |   |   |             |
|                                       | (u) %      | (u) %                                | (u) %       | (u) %    | (u) %               | (u) %      | (u) %  | (u) %      | (u) %      | (u) %                                       | (u) %   | (u) %       |
| Māori Rainbow                         | 1.9% (154) | 1.9% (154)   69.5% (107) 28.6% (44)  | 28.6% (44)  | 1.9% (3) | 1.9% (3) 18.8% (29) |            | 18.8% (29) 22.1% (34) 16.9% (26) 23.4% (36) 13.0% (20) | 16.9% (26) | 23.4% (36) | 13.0% (20)                                  | 29.9% (46)  | 40.9% (63)  |
| Māori with a<br>Disabling Condition   | 5.5% (435) | 5.5% (435)   60.9% (265) 38.9% (169) | 38.9% (169) | 0.2% (1) | 0.2% (1) 16.6% (72) |            | 27.6% (120)  | 18.9% (82) | 15.2% (66) | 12.4% (54)                                  | 21.8% (95) 27.6% (120) 18.9% (82) 15.2% (66) 12.4% (54) 27.6% (120) 43.9% (191) | 43.9% (191) |
| Pacific Rainbow                       | 1.3% (103) | 1.3% (103) 62.1% (64)                | 33.0% (34)  | 4.9% (5) | 4.9% (5) 19.4% (20) | 25.2% (26) | 16.5% (17) 15.5% (1) 23.3% (24) 5.8% (6)               | 15.5% (1)  | 23.3% (24) | 5.8% (6)                                    | 27.2% (28)  | 53.4% (55)  |
| Pacific with a<br>Disabling Condition | 3.8% (293) | 3.8% (293) 70.0% (205) 29.0% (85)    | 29.0% (85)  | 1.0% (3) | 1.0% (3) 12.3% (36) |            | 18.4% (54) 25.9% (76) 18.8% (55) 24.6% (72) 7.5% (22)  | 18.8% (55) | 24.6% (72) | 7.5% (22)                                   | 17.4% (51)  | 61.8% (181) |
| Rainbow with a<br>Disabling Condition | 4.3% (333) | 4.3% (333) 77.2% (257) 20.1% (67)    | 20.1% (67)  | 2.7% (9) | 2.7% (9) 12.6% (42) | 21.9% (73) |  | 20.7% (69) | 26.4% (88) | 18.3% (61) 20.7% (69) 26.4% (88) 23.1% (77) | 40.5% (135)   | 25.2% (84)  |

Note. Total % refers to the percentage of the total Youth19 survey sample, for example, there were 154 Rainbow Rangatahi Māori, 1.9% of the Youth19 participants. NZ Deprivation Band 1, 2 and 8-10 respectively (often referred to as low, medium and high dep).

Table S3. Prevalence with 95% confidence intervals across variables for Pacific Rainbow young people.

| Variable Name         | Pacific Rainbow<br>% (95% Cls) | Pacific Non-Rainbow<br>% (95% Cls) | Pākehā Rainbow<br>% (95% Cls) | Pākehā Non-Rainbow<br>% (95% CIs) |
|-----------------------|--------------------------------|------------------------------------|-------------------------------|-----------------------------------|
| Family acceptance     | 70.2 (59.5, 80.8)              | 89.2 (87.1, 91.2)                  | 78.7 (72.5, 84.8)             | 93.1 (92.0, 94.2)                 |
| Family close          | 75.8 (65.8, 85.7)              | 90.3 (88.2, 92.3)                  | 74.7 (68.1, 81.4)             | 88.7 (87.3, 90.1)                 |
| Safe at home          | 93.4 (88.0, 98.9)              | 98.9 (98.3, 99.5)                  | 96.4 (93.9, 98.9)             | 99.3 (98.9, 99.6)                 |
| Housing instability   | 23.0 (13.4, 32.6)              | 20.0 (17.4, 22.7)                  | 9.7 (5.1, 14.3)               | 4.5 (3.5, 5.4)                    |
| Food insecurity       | 42.1 (30.5, 53.6)              | 48.7 (45.2, 52.2)                  | 20.6 (14.6, 26.6)             | 16.1 (14.5, 17.8)                 |
| Part of school        | 85.0 (77.2, 92.8)              | 87.5 (85.2, 89.8)                  | 78.4 (72.9, 83.9)             | 86.1 (84.7, 87.6)                 |
| Teacher expectations  | 92.7 (86.5, 99.0)              | 96.9 (95.7, 98.1)                  | 89.8 (84.4, 95.2)             | 97.0 (96.2, 97.7)                 |
| Safe at school        | 76.2 (66.3, 86.1)              | 85.4 (83.0, 87.7)                  | 78.7 (72.6, 84.8)             | 89.4 (88.0, 90.9)                 |
| Positive future       | 52.1 (38.1, 66.0)              | 67.1 (63.6, 70.7)                  | 50.1 (42.0, 58.2)             | 74.7 (72.7, 76.6)                 |
| Volunteering          | 58.1 (46.2, 70.1)              | 57.1 (53.6, 60.7)                  | 55.2 (48.0, 62.4)             | 53.2 (51.0, 55.4)                 |
| Safe in community     | 91.5 (85.2, 97.7)              | 94.1 (92.4, 95.8)                  | 91.9 (87.6, 96.2)             | 95.4 (94.6, 96.3)                 |
| Talk with friend      | 90.6 (85.3, 96.0)              | 83.2 (80.6, 85.7)                  | 86.4 (82.0, 90.7)             | 86.0 (84.5, 87.6)                 |
| Friend supports       | 84.1 (75.9, 92.3)              | 90.1 (87.9, 92.2)                  | 76.7 (70.6, 82.8)             | 89.6 (88.2, 91.0)                 |
| Accessed healthcare   | 69.6 (57.6, 81.6)              | 72.7 (69.7, 75.8)                  | 79.8 (73.0, 86.6)             | 81.6 (79.9, 83.3)                 |
| Forgone healthcare    | 39.4 (26.3, 52.4)              | 25.6 (22.6, 28.5)                  | 27.5 (20.6, 34.4)             | 15.4 (13.8, 16.9)                 |
| Health discrimination | 15.1 (6.2, 24.0)               | 7.9 (6.1, 9.7)                     | 2.9 (1.6, 4.2)                | 2.9 (2.2, 3.6)                    |
| Cigarette use         | 20.1 (11.4, 28.8)              | 10.8 (8.8, 12.8)                   | 16.3 (9.5, 23.1)              | 7.9 (6.8, 9.0)                    |
| Binge drinking        | 18.7 (12.5, 24.9)              | 18.7 (16.7, 20.7)                  | 17.2 (15.2, 19.2)             | 21.9 (20.4, 23.4)                 |
| Marijuana use         | 24.4 (13.4, 35.3)              | 15.3 (13.2, 17.5)                  | 19.1 (13.5, 24.7)             | 15.9 (14.4, 17.4)                 |
| Had sex               | 35.5 (25.4, 45.7)              | 21.3 (18.9, 23.7)                  | 19.4 (15.8, 23.0)             | 18.5 (17.0, 20.0)                 |
| Condom use            | 24.6 (8.5, 40.7)               | 28.3 (20.7, 36.0)                  | 43.6 (25.9, 61.3)             | 47.5 (41.1, 53.8)                 |
| Contraception use     | 21.5 (4.7, 38.3)               | 31.1 (23.5, 38.6)                  | 52.5 (34.2, 70.8)             | 60.1 (53.8, 66.5)                 |
| Good wellbeing        | 52.1 (40.3, 63.9)              | 76.4 (73.7, 79.2)                  | 38.1 (30.9, 45.2)             | 73.1 (71.1, 75.1)                 |
| Depressive symptoms   | 46.7 (35.0, 58.5)              | 24.2 (21.3, 27.1)                  | 48.8 (40.9, 56.7)             | 18.1 (16.4, 19.8)                 |
| Suicide thoughts      | 41.8 (28.8, 54.7)              | 24.3 (21.4, 27.2)                  | 44.8 (36.8, 52.8)             | 15.5 (13.9, 17.2)                 |

Note: Prevalence estimates adjusted for survey design and for age and gender. Values in bold indicate where the group's Cls do not overlap with those of the double majority group.

Table S4. Prevalence (with 95% Cis) across variables for Pacific young people with a disabling condition.

| Variable Name         | Docific                         | Dacific                               | בליילבם                         | בלייובם                               |
|-----------------------|---------------------------------|---------------------------------------|---------------------------------|---------------------------------------|
|                       | Disabling Condition % (95% Cls) | No Disabling Condition<br>% (95% Cls) | Disabling Condition % (95% Cls) | No Disabling Condition<br>% (95% CIs) |
| Family acceptance     | 81.3 (76.5, 86.1)               | 89.7 (87.4, 92.0)                     | 85.6 (82.5, 88.7)               | 93.7 (92.5, 94.9)                     |
| Family close          | 85.4 (80.7, 90.2)               | 90.3 (88.0, 92.6)                     | 81.1 (77.7, 84.6)               | 89.4 (87.9, 90.9)                     |
| Safe at home          | 96.5 (94.1, 98.9)               | 99.1 (98.5, 99.7)                     | 97.4 (96.0, 98.7)               | 99.5 (99.2, 99.8)                     |
| Housing instability   | 26.3 (20.8, 31.8)               | 18.4 (15.6, 21.3)                     | 8.9 (6.3, 11.6)                 | 3.7 (2.8, 4.7)                        |
| Food insecurity       | 54.8 (48.1, 61.4)               | 46.2 (42.4, 50.1)                     | 23.3 (19.5, 27.2)               | 14.3 (12.6, 16.0)                     |
| Part of school        | 83.2 (78.6, 87.8)               | 88.6 (86.1, 91.1)                     | 80.9 (77.8, 84.0)               | 86.8 (85.3, 88.4)                     |
| Teacher expectations  | 96.3 (94.1, 98.4)               | 96.7 (95.3, 98.2)                     | 94.5 (92.4, 96.7)               | 96.8 (95.9, 97.6)                     |
| Safe at school        | 77.1 (72.0, 82.2)               | 86.8 (84.3, 89.3)                     | 78.8 (74.9, 82.6)               | 91.6 (90.2, 93.0)                     |
| Positive future       | 61.8 (54.6, 69.0)               | 67.4 (63.5, 71.3)                     | 59.0 (54.4, 63.6)               | 76.7 (74.6, 78.8)                     |
| Volunteering          | 61.4 (54.8, 68.1)               | 55.8 (51.9, 59.8)                     | 55.5 (51.2, 59.9)               | 52.7 (50.3, 55.1)                     |
| Safe in community     | 90.8 (87.2, 94.4)               | 94.9 (93.1, 96.7)                     | 94.4 (92.3, 96.4)               | 95.3 (94.3, 96.3)                     |
| Talk with friend      | 81.8 (77.1, 86.6)               | 84.3 (81.5, 87.0)                     | 82.2 (79.0, 85.5)               | 87.3 (85.7, 88.9)                     |
| Friend supports       | 87.6 (83.4, 91.8)               | 90.3 (87.9, 92.7)                     | 82.4 (78.9, 85.9)               | 90.3 (88.9, 91.8)                     |
| Accessed healthcare   | 74.1 (68.3, 79.9)               | 72.1 (68.6, 75.5)                     | 85.7 (82.4, 89.1)               | 80.0 (78.0, 81.9)                     |
| Forgone healthcare    | 43.2 (36.6, 49.7)               | 21.3 (18.2, 24.5)                     | 31.9 (27.7, 36.0)               | 11.5 (10.0, 13.0)                     |
| Health discrimination | 11.9 (7.9, 15.8)                | 7.2 (5.3, 9.1)                        | 4.4 (3.0, 5.9)                  | 2.4 (1.8, 3.1)                        |
| Cigarette use         | 16.2 (11.6, 20.8)               | 10.0 (7.9, 12.1)                      | 12.8 (9.7, 15.9)                | 7.4 (6.3, 8.6)                        |
| Binge drinking        | 21.6 (16.6, 26.5)               | 17.9 (15.8, 20.0)                     | 25.4 (22.2, 28.7)               | 20.1 (18.5, 21.7)                     |
| Marijuana use         | 20.9 (15.5, 26.2)               | 14.2 (12.1, 16.3)                     | 22.7 (19.2, 26.2)               | 14.3 (12.9, 15.8)                     |
| Had sex               | 22.7 (18.1, 27.3)               | 21.7 (19.1, 24.3)                     | 21.9 (19.2, 24.6)               | 17.8 (16.3, 19.3)                     |
| Condom use            | 25.5 (14.2, 36.8)               | 28.6 (20.3, 36.9)                     | 44.3 (35.1, 53.5)               | 48.3 (41.2, 55.5)                     |
| Contraception use     | 35.3 (22.3, 48.3)               | 27.7 (19.8, 35.6)                     | 54.6 (44.7, 64.4)               | 61.5 (54.5, 68.6)                     |
| Good wellbeing        | 64.2 (58.3, 70.1)               | 77.6 (74.5, 80.6)                     | 45.9 (41.6, 50.2)               | 77.6 (75.6, 79.6)                     |
| Depressive symptoms   | 42.5 (36.2, 48.8)               | 21.1 (18.0, 24.3)                     | 45.6 (41.2, 50.1)               | 13.1 (11.5, 14.8)                     |
| Suicide thoughts      | 41.4 (34.8, 47.9)               | 20.9 (17.8, 24.1)                     | 36.1 (31.8, 40.5)               | 12.5 (10.8, 14.2)                     |

Note: Prevalence estimates adjusted for survey design and for age and gender. Values in bold indicate where the group's CIs do not overlap with those of the double majority group.